

REMARKS/ARGUMENTS

Favorable reconsideration of this application is respectfully requested.

Claims 1-17 are pending in this application. Claims 12-17 are added by the present response. Claims 1, 2, 10, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. patent 5,742,927 to Crozier et al. (herein "Crozier") in view of U.S. patent 5,757,937 to Itoh et al. (herein "Itoh"). Claim 3 was rejected under 35 U.S.C. § 103(a) as unpatentable over Crozier/Itoh as applied to claim 2 in view of U.S. patent 6,477,489 to Lockwood et al. (herein "Lockwood"). Claims 4 and 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over Crozier/Itoh as applied to claim 1 in view of U.S. patent 5,668,927 to Chan et al. (herein "Chan"). Claim 5 was rejected under 35 U.S.C. § 103(a) as unpatentable over Crozier as modified as applied to claim 4, and further in view of Lockwood. Claims 6 and 9 were rejected under 35 U.S.C. § 103(a) as unpatentable over Crozier/Itoh as applied to claim 2 in view of Chan. Claim 7 was rejected under 35 U.S.C. § 103 as unpatentable over Crozier as modified as applied to claim 6, and further in view of Lockwood.

Initially, applicant and applicant's representative wish to thank Examiners Michalski and Mei for the interview granted applicant's representative on May 10, 2005. During the interview the outstanding rejections were discussed in detail. Further, during that interview amendments to the claims were discussed to clarify claim features. The present response sets forth the discussed claim amendments. During the interview the Examiners indicated such amended claims appear to address the outstanding rejections, but would raise new issues requiring further consideration and/or search.

Addressing now the above-noted rejections, those rejections are traversed by the present response.

Initially, applicants note each of the independent claims is amended by the present response to clarify features recited therein. Specifically, independent claim 1 now clarifies the operation of the “noise-likeness analyzing unit” to positively recite:

a noise-likeness analyzing unit which receives the input signal including the object signal and a noise mixed therein, and which performs linear predictive analysis to obtain linear predictive coefficients used to generate a low pass residual signal, and which performs correlation analysis on the low pass residual signal, and which determines the noise-likeness of the input signal frame[.]

The other independent claims 10 and 11 are amended by the present response to clarify similar features as noted above in independent claim 1. Such features clarified in the claims are also believed to be clear from the original specification for example at page 11, line 10 to page 12, line 14. Further, the claimed features are believed to distinguish over the applied art.

The basis for each rejection recognizes deficiencies in Crozier with respect to the noise-likeness analyzing unit, and specifically states “Crozier does not disclose the noise-likeness analyzing unit performing linear predictive analysis on the input signal”.¹ To overcome the recognized deficiencies in Crozier the outstanding Office Action cites the teachings in Itoh, specifically stating:

Itoh also discloses a noise suppressor apparatus using spectral suppression including analysis circuit 20 which comprises a linear predictive coding analysis part 22 for determining whether the input signal is speech or noise signal (Col. 4, lines 51-62) and determine a power spectrum of the noise and speech signal (Col. 5, lines 23-35).²

In response to that basis for the outstanding rejection, applicants first respectfully submit that the analysis/discrimination part 20 and linear predictive coding analysis part 22 do not teach features of the claimed “noise-likeness analyzing unit”. More particularly, the noise-likeness analyzing unit is clarified in the claims “to obtain linear predictive coefficients

¹ Office Action of April 22, 2005, page 3, lines 17-18.

² Office Action of April 22, 2005, page 3, lines 18-22.

used to generate a low pass residual signal, and which performs correction analysis on the low pass residual signal". The analysis/discrimination part 20 and the linear predictive coding analysis part 22 in Itoh do not meet such limitations.

In such ways, applicants respectfully submit that Itoh does not overcome the recognized deficiencies of Crozier with respect to the claimed features as currently written. Thereby, each of the claims is believed to distinguish over the combination of teachings of Crozier in view of Itoh.

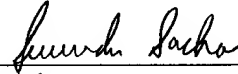
Moreover, with respect to the further dependent claims, applicants respectfully submit those claims also distinguish over the applied art, particularly as none of these further cited teachings to Lockwood or Chan are believed to overcome the above-noted deficiencies of Crozier in view of Itoh.

The present response also sets forth new dependent claims 12-17 for examination, which are believed to even further distinguish over the applied art. Specifically, those claims are directed to further details of the noise-likeness analyzing unit such as disclosed in the present specification at page 12, line 6 et seq. Such further features are believed to further distinguish over the applied art.

As no other issues are pending in this application, it is respectfully submitted that the present application is now in condition for allowance, and it is hereby respectfully requested that this case be passed to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Registration No. 25,599
Surinder Sachar
Registration No. 34,423
Attorneys of Record

Customer Number

22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

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